

## NOTICES OF PROPOSED RULEMAKING

Unless exempted by A.R.S. § 41-1005, each agency shall begin the rulemaking process by first submitting to the Secretary of State's Office a Notice of Rulemaking Docket Opening followed by a Notice of Proposed Rulemaking that contains the preamble and the full text of the rules. The Secretary of State's Office publishes each Notice in the next available issue of the *Register* according to the schedule of deadlines for *Register* publication. Due to time restraints, the Secretary of State's Office will no longer edit the text of proposed rules. We will continue to make numbering and labeling changes as necessary.

Under the Administrative Procedure Act (A.R.S. § 41-1001 et seq.), an agency must allow at least 30 days to elapse after the publication of the Notice of Proposed Rulemaking in the Register before beginning any proceedings for adoption, amendment, or repeal of any rule. A.R.S. §§ 41-1013 and 41-1022.

### NOTICE OF PROPOSED RULEMAKING

#### TITLE 18. ENVIRONMENTAL QUALITY

#### CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY

#### AIR POLLUTION CONTROL

#### PREAMBLE

**1. Sections Affected**

R18-2-310  
R18-2-310  
R18-2-310.01  
R18-2-313  
R18-2-724

**Rulemaking Action**

Repeal  
New Section  
New Section  
Amend  
Amend

**2. The specific authority for the rulemaking, including both the authorizing statute (general and the statutes the rules are implementing (specific):**

Authorizing and implementing statutes: A.R.S. §§ 49-104(A)(11), 49-404, 49-425, and 49-426

**3. List of all previous notices appearing in the register addressing the proposed rule:**

Notice of Rulemaking Docket Opening: 6 A.A.R. 3854, October 6, 2000

**4. The name and address of agency personnel with whom persons may communicate regarding the rulemaking:**

Name: Mark Lewandowski or Martha Seaman, Rule Development Section

Address: ADEQ  
3033 North Central Avenue  
Phoenix, Arizona 85012-2809

Telephone: (602) 207-2230 or (602) 207-2221. If you are outside the (602) area code dial 1(800) 234-5677, and ask for the extension.

Fax: (602) 207-2251

**5. An explanation of the rule, including the agency's reasons for initiating the rule:**

**Summary.** ADEQ is proposing amendments to its affirmative defense provisions for excess emissions in R18-2-310 in order to include an approvable affirmative defense mechanism in the State Implementation Plan (SIP). EPA proposed SIP approval of the current version of R18-2-310 in 1986, but never finalized its proposal. Then, in 1999, EPA published a clarifying policy on affirmative defense mechanisms for SIPs ("State Implementation Plans (SIPS): Policy Regarding Excess Emissions During Malfunctions, Startup, and Shutdown," August 11, 1999). This proposed rule is necessary to meet the SIP requirements under the 1999 Guidance.

In a related matter, EPA issued interim approval of Arizona's Title V submittal on October 30, 1996, while specifically rejecting the current R18-2-310 as part of the Title V program. Discussions on R18-2-310 over the last 4 years have concluded that the rule should not be part of the Title V program. Therefore, once this proposed rule is final, ADEQ plans to withdraw the former R18-2-310 from its Title V submittal. ADEQ was not a party to the litigation.

ADEQ recently proposed a similar rule to the current proposal for the purposes of SIP and Title V program approval (5 A.A.R. 2840, August 20, 1999). That rule was terminated by ADEQ in order to resolve some unresolved issues between the stakeholders.

This proposed rule would continue the affirmative defense for certain excess emissions due to malfunctions, startups, and shutdowns. ADEQ is proposing to slightly modify the criteria for these affirmative defense categories to ensure that EPA will approve the rule into the SIP. The affirmative defenses will become more useful once they are approved into the SIP because they will be available in actions by citizens or EPA in federal court. The revisions clarify when affirmative defenses can be used and the steps a source must take to utilize an affirmative defense.

The current R18-2-310 also allows an affirmative defense for certain types of excess emissions during scheduled maintenance, if “greater or more extended excess emissions would result unless scheduled maintenance is performed.” In order to facilitate EPA approval of the affirmative defense rule into the SIP, the scheduled maintenance provision has been removed in this proposed rule. ADEQ is, however, studying the continued need for such a provision and expects to make it the subject of one or more rulemakings in the near future. In the interim, a scheduled maintenance affirmative defense is not available, however ADEQ still has enforcement action discretion, both in situations that would have previously allowed the defense, and in those that would not have. ADEQ will work with the public, and with sources in individual situations and in the rulemaking process, to ensure that enforcement action is pursued when appropriate and not used when not appropriate in situations related to scheduled maintenance.

Below are explanations of new Sections R18-2-310 and R18-2-310.01. The technical amendments to the remaining Sections (R18-2-313 and R18-2-724) correct citations to the old R18-2-310.

**R18-2-310. Excess Emissions Due to Malfunctions, Startup, and Shutdown.** The proposed new R18-2-310 clarifies those conditions under which a source may obtain an affirmative defense if the source exceeds applicable emission limitations due to malfunction, startup, and shutdown.

ADEQ believes the proposed rule resolves the issue of providing an affirmative defense for noncompliance with federal applicable requirements by listing in R18-2-310(A) those federal emission standards or limits that are excluded under the proposed rule. Proposed R18-2-310(B) and (C) specify the criteria an owner or operator must meet to obtain an affirmative defense in a civil or administrative enforcement proceeding.

The proposed rule specifies that an affirmative defense is available in any civil or administrative proceeding (other than one for injunctive relief) upon the owner or operator demonstrating and agreeing to specific conditions (affirmative defenses in criminal proceedings are contained in A.R.S. §§ 49-464 (P), (Q) and (R) and 49-514 (O), (P) and (Q)). The proposed rule revision mandates that before owners and operators are granted an affirmative defense they must demonstrate that the source’s equipment and operations during startup, shutdown, and malfunction provided maximum protection to public health and to ambient air quality.

In the proposed rule, the majority of conditions for an affirmative defense relating to malfunction, startup, and shutdown are identical. The proposed rule, while recognizing the inevitability of these events, requires owners or operators to maximize their planning efforts and anticipate their responses whether the event is a malfunction, startup, or shutdown.

**R18-2-310.01. Reporting Requirements.** The proposed new Section moves existing R18-2-310(C) and (D) to a separate Section to remove any ambiguities regarding the need and process for reporting an excess emissions event. The proposed rule maintains the existing language that establishes a two-part reporting requirement for an owner or operator following an excess emissions event. The first requires notification by phone or fax within 24 hours of the event and the second requires a written report within 72 hours to the Director. The reporting requirements allow ADEQ to record and track such events as part of permitting and compliance efforts. This reporting requirement applies whether or not the owner or operator is requesting an affirmative defense as allowed by the proposed revisions to R18-2-310.

**6. A showing of good cause why the rule is necessary to promote a statewide interest if the rule will diminish a previous grant of authority of a political subdivision of the state:**

Not Applicable

**7. A reference to any study that the agency proposes to rely on its evaluation of or justification for the proposed rule and where the public may obtain or review the study, all data underlying each study, any analysis of the study and other supporting material:**

Not Applicable

**8. The preliminary summary of the economic, small business, and consumer impact:**

A. Identify proposed rulemaking

Title 18, Chapter 2, R18-2-310, R18-2-310.01, R18-2-313, and R18-2-724.

This proposed rule would make minor changes to existing affirmative defense requirements under conditions of malfunction, start up, and shutdown. ADEQ has concluded that these minor changes will have a negligible economic impact on sources that may wish to use the affirmative defense under these conditions. ADEQ requests comment on this conclusion. In addition, ADEQ has determined that with these changes, the affirmative defense under conditions of malfunction, startup, and shutdown will be approvable by EPA into the SIP and therefore become more valuable to sources, because of its availability in federal court in enforcement actions by citizens or EPA under the SIP. It should also be noted that because existing R18-2-310 is not approved into the SIP, an excess emissions affirmative defense for sources in suits by citizens or EPA does not exist under the SIP. The current affirmative defenses are for actions by the state in state court.

This proposed rule would also eliminate, on a temporary basis, the affirmative defense for excess emissions due to scheduled maintenance. The economic impact of this change on sources is difficult to estimate because sources may choose to take certain actions as a result, but are not required to. As explained in the preamble, an affirmative defense effectively removes the Department's option to take enforcement action in a case where the facts support the affirmative defense. However, with no affirmative defense available to a source for excess emissions during scheduled maintenance, ADEQ still retains enforcement discretion. Therefore, in the absence of an affirmative defense, some sources may choose to assume that ADEQ will not take enforcement action, or that if an action is taken, that the monetary penalty will be small in comparison to the larger amounts of money necessary to install redundant pollution controls or that would be lost through shutting down an entire process for the time needed to perform the maintenance, and, thereby, avoid any excess emissions.

ADEQ has received some information relative to the copper smelting and semiconductor industries, 2 market sectors that could be impacted by the temporary removal of the scheduled maintenance affirmative defense. The probable impact for semiconductor facilities is due to the fact that semiconductor facilities typically run 24 hours a day, 365 days a year with little or no downtime. According to the information received, when a semiconductor facility has shutdowns, the shutdown either does not coincide with the need for preventive or scheduled maintenance, or does not last long enough to perform the necessary maintenance to keep control equipment in proper working order.

Two alternatives for sources without an affirmative defense for excess emissions due to scheduled maintenance are possible. In the first, the source shuts down part or all of a facility's operations to do preventative maintenance on control devices. In the second, redundant control devices are built into the process to allow operation by one while maintenance is performed on the other. With an affirmative defense, a single control device is installed and operated, but may be bypassed during maintenance, during which time excess emissions may result.

Based on information submitted to EPA by the Arizona Association of Industries and collected from member semiconductor manufacturing companies, requiring these "plants to shut down manufacturing equipment only to perform [preventative maintenance] on control devices would result in anywhere from \$3 million to more than \$10 million dollars of lost revenues per day." Alternatively, "[r]equiring the use of redundant control devices in many cases would be impracticable, and in all cases economically unjustified." (Paper from the Arizona Association of Industries, February 10, 1998) This information supports the argument that semiconductor sources may not choose either alternative to the affirmative defense and will continue to use a single control system and periodically bypass, even if the affirmative defense for scheduled maintenance ceases to exist for a period of time.

Similar examples of industry impact come from the copper smelting industry. Exact situations would be facility specific. With its capability of exercising enforcement discretion, ADEQ will continue to work with individual sources to minimize the impact of the temporarily unavailable affirmative defense for scheduled maintenance.

**9. The name and address of agency personnel with whom persons may communicate regarding the accuracy of the economic, small business, and consumer impact statement:**

Name:	David Lillie, Economist, Rule Development Section
Address:	ADEQ 3033 North Central Avenue Phoenix, Arizona 85012-2809
Telephone:	(602) 207-4436 (Any extension may be reached in-state by dialing 1-800-234-5677 and asking for that extension.)
Fax:	(602) 207-2251

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**10. The time, place, and nature of the proceedings for the adoption, amendment, or repeal of the rule or, if no proceeding is scheduled, where, when and how persons may request an oral proceeding on the proposed rule:**

Oral Proceeding: 9:30 a.m., December 5, 2000

Close of comment: 5:00 p.m., December 8, 2000

Location: Arizona Department of Environmental Quality, Room 1706, 3033 North Central Avenue, Phoenix, AZ  
(Please call 602-207-4795 for special accommodations pursuant to the Americans with Disabilities Act.)

Nature: Public hearing with opportunity for formal comments on the record regarding the proposed rules and the submittal of the rules to the Environmental Protection Agency as a revision to the State Implementation Plan.

**11. Any other matters prescribed by statute that are applicable to the specific agency or to any specific rule or class of rules:**

Not Applicable

**12. Incorporations by reference and their location in the rules:**

None

**13. The full text of the rule follows:**

**TITLE 18. ENVIRONMENTAL QUALITY**

**CHAPTER 2. DEPARTMENT OF ENVIRONMENTAL QUALITY**

**AIR POLLUTION CONTROL**

**ARTICLE 3. PERMITS AND PERMIT REVISIONS**

Sections

<del>R18-2-310.</del>	<del>Excess Emissions Repealed</del>
<del>R18-2-310.</del>	<del>Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown</del>
<del>R18-2-310.01.</del>	<del>Reporting Requirements</del>
<del>R18-2-313.</del>	<del>Existing Source Emission Monitoring</del>

**ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS**

Section

<del>R18-2-724.</del>	<del>Standards of Performance for Fossil-fuel Fired Industrial and Commercial Equipment</del>
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**ARTICLE 3. PERMITS AND PERMIT REVISIONS**

**~~R18-2-310.~~      ~~Excess Emissions Repealed~~**

~~A. Emissions in excess of an applicable emission limitation contained in this Chapter or in the terms of a permit shall constitute a violation. For all situations that constitute an emergency as defined in R18-2-306(E), the affirmative defense and reporting requirements contained in that provision shall apply. In all other circumstances, it shall be an affirmative defense if the owner or operator of the source has complied with the reporting requirements of subsection (C) of this Section in a timely manner, and has demonstrated all of the following:~~

- ~~1. The excess emissions resulted from a sudden and unavoidable breakdown of the process or the control equipment; resulted from unavoidable conditions during startup or shutdown; resulted from unavoidable conditions during an upset of operations; or that greater or more extended excess emissions would result unless scheduled maintenance is performed;~~
- ~~2. The air pollution control equipment, process equipment, or processes were at all times maintained and operated, in a manner consistent with good practice for minimizing emissions;~~
- ~~3. Where repairs were required, such repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded and off-shift labor and overtime were utilized where practical to insure that such repairs were made as expeditiously as possible. If offshift labor and overtime were not utilized, the owner or operator satisfactorily demonstrated that such measures were impractical;~~
- ~~4. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;~~
- ~~5. All feasible steps were taken to minimize the impact of the excess emissions on potential violations of ambient air quality standards;~~
- ~~6. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance; and;~~

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7. During the period of excess emissions there were no measured violations of the ambient air quality standards established in Article 2 of this Chapter which could be attributed to the emitting source.
- B.** ~~It shall be the burden of the owner or operator of the source to demonstrate, through submission of the data and information required by this Section, that all reasonable and practicable measures within the owner or operator's control were implemented to prevent the occurrence of excess emissions.~~
- C.** ~~Excess emissions shall be reported as follows:~~
- ~~1. The owner or operator of any source issued a permit shall report to the Director any emissions in excess of the limits established by this Chapter or the applicable permit. Such report shall be in 2 parts as specified below:~~
    - ~~a. Notification by telephone or facsimile within 24 hours of the time when the owner or operator first learned of the occurrence of excess emissions including all available information from subsection (C)(2).~~
    - ~~b. Detailed written notification within 72 hours of the notification pursuant to subsection (C)(1)(a).~~
  - ~~2. The excess emissions report shall contain the following information:~~
    - ~~a. The identity of each stack or other emission point where the excess emissions occurred.~~
    - ~~b. The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions.~~
    - ~~c. The time and duration or expected duration of the excess emissions.~~
    - ~~d. The identity of the equipment from which the excess emissions emanated.~~
    - ~~e. The nature and cause of such emissions.~~
    - ~~f. If the excess emissions were the result of a malfunction, steps taken to remedy the malfunction and the steps taken or planned to prevent the recurrence of such malfunctions.~~
    - ~~g. The steps that were or are being taken to limit the excess emissions. If the source's permit contains procedures governing source operation during periods of start-up or malfunction and the excess emissions resulted from start-up or malfunction, the report shall contain a list of the steps taken to comply with the permit procedures.~~
- D.** ~~In the case of continuous or recurring excess emissions, the notification requirements of this Section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in such notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to subsection (C)(1)(b).~~
- E.** ~~Information required to be submitted by this Section shall be summarized and reported to the Director in accordance with provisions contained in the applicable permit issued pursuant to the requirements of this Chapter.~~

**R18-2-310. Affirmative Defenses for Excess Emissions Due to Malfunctions, Startup, and Shutdown**

**A. Applicability**

This rule establishes affirmative defenses for certain emissions in excess of an emission standard or limitation and applies to all emission standards or limitations except for standards or limitations:

1. Promulgated pursuant to Sections 111 or 112 of the Act,
2. Promulgated pursuant to Titles IV or VI of the Clean Air Act,
3. Contained in any Prevention of Significant Deterioration (PSD) or New Source Review (NSR) permit issued by the U.S. E.P.A.,
4. Contained in R18-2-715(F), or
5. Included in a permit to meet the requirements of R18-2-406(A)(5).

**B. Affirmative Defense for Malfunctions**

Emissions in excess of an applicable emission limitation due to malfunction shall constitute a violation. The owner or operator of a source with emissions in excess of an applicable emission limitation due to malfunction has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the owner or operator of the source has complied with the reporting requirements of R18-2-310.01 and has demonstrated all of the following:

1. The excess emissions resulted from a sudden and unavoidable breakdown of process equipment or air pollution control equipment beyond the reasonable control of the operator;
2. The air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
3. If repairs were required, the repairs were made in an expeditious fashion when the applicable emission limitations were being exceeded. Off-shift labor and overtime were utilized where practicable to ensure that the repairs were made as expeditiously as possible. If off-shift labor and overtime were not utilized, the owner or operator satisfactorily demonstrated that the measures were impractical;
4. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
5. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
6. The excess emissions were not part of a recurring pattern indicative of inadequate design, operation, or maintenance;

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7. During the period of excess emissions there were no exceedences of the relevant ambient air quality standards established in Article 2 of this Chapter that could be attributed to the emitting source;
8. The excess emissions did not stem from any activity or event that could have been foreseen and avoided, or planned, and could not have been avoided by better operations and maintenance practices;
9. All emissions monitoring systems were kept in operation if at all practicable; and
10. The owner or operator's actions in response to the excess emissions were documented by contemporaneous records.

**C. Affirmative Defense for Startup and Shutdown**

1. Except as provided in subsection (C)(2), and unless otherwise provided for in the applicable requirement, emissions in excess of an applicable emission limitation due to startup and shutdown shall constitute a violation. The owner or operator of a source with emissions in excess of an applicable emission limitation due to startup and shutdown has an affirmative defense to a civil or administrative enforcement proceeding based on that violation, other than a judicial action seeking injunctive relief, if the owner or operator of the source has complied with the reporting requirements of R18-2-310.01 and has demonstrated all of the following:
  - a. The excess emissions could not have been prevented through careful and prudent planning and design;
  - b. If the excess emissions were the result of a bypass of control equipment, the bypass was unavoidable to prevent loss of life, personal injury, or severe damage to air pollution control equipment, production equipment, or other property;
  - c. The source's air pollution control equipment, process equipment, or processes were at all times maintained and operated in a manner consistent with good practice for minimizing emissions;
  - d. The amount and duration of the excess emissions (including any bypass operation) were minimized to the maximum extent practicable during periods of such emissions;
  - e. All reasonable steps were taken to minimize the impact of the excess emissions on ambient air quality;
  - f. During the period of excess emissions there were no exceedences of the relevant ambient air quality standards established in Article 2 of this Chapter that could be attributed to the emitting source;
  - g. All emissions monitoring systems were kept in operation if at all practicable; and
  - h. The owner or operator's actions in response to the excess emissions were documented by contemporaneous records.
2. If excess emissions occur due to a malfunction during routine startup and shutdown, then those instances shall be treated as other malfunctions subject to subsection (B).

**D. Affirmative Defense for Malfunctions During Scheduled Maintenance**

If excess emissions occur due to a malfunction during scheduled maintenance, then those instances will be treated as other malfunctions subject to subsection (B).

**E. Demonstration of Reasonable and Practicable Measures**

For an affirmative defense under subsection (B) or (C), the owner or operator of the source shall demonstrate, through submission of the data and information required by this Section and R18-2-310.01, that all reasonable and practicable measures within the owner or operator's control were implemented to prevent the occurrence of the excess emissions.

**R18-2-310.01. Reporting Requirements**

**A. The owner or operator of any source shall report to the Director any emissions in excess of the limits established by this Chapter or the applicable permit. The report shall be in 2 parts as specified below:**

1. Notification by telephone or facsimile within 24 hours of the time the owner or operator first learned of the occurrence of excess emissions that includes all available information from subsection (B).
2. Detailed written notification by submission of an excess emissions report within 72 hours of the notification under subsection (1).

**B. The excess emissions report shall contain the following information:**

1. The identity of each stack or other emission point where the excess emissions occurred;
2. The magnitude of the excess emissions expressed in the units of the applicable emission limitation and the operating data and calculations used in determining the magnitude of the excess emissions;
3. The time and duration or expected duration of the excess emissions;
4. The identity of the equipment from which the excess emissions emanated;
5. The nature and cause of the emissions;
6. The steps taken, if the excess emissions were the result of a malfunction, to remedy the malfunction and the steps taken or planned to prevent the recurrence of the malfunctions;
7. The steps that were or are being taken to limit the excess emissions; and
8. If the source's permit contains procedures governing source operation during periods of startup or malfunction and the excess emissions resulted from startup or malfunction, a list of the steps taken to comply with the permit procedures.

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- C.** In the case of continuous or recurring excess emissions, the notification requirements of this Section shall be satisfied if the source provides the required notification after excess emissions are first detected and includes in the notification an estimate of the time the excess emissions will continue. Excess emissions occurring after the estimated time period or changes in the nature of the emissions as originally reported shall require additional notification pursuant to subsections (A) and (B).

**R18-2-313. Existing Source Emission Monitoring**

- A.** No change
- B.** No change
- C.** No change
- D.** No change
- E.** Minimum data requirement: The following subsections set forth the minimum data reporting requirements for sources employing continuous monitoring equipment as specified in this Section. These periodic reports do not relieve the source operator from the reporting requirements of ~~Section R18-2-310~~ R18-2-310.01.
  - 1. No change
  - 2. No change
  - 3. No change
  - 4. No change
  - 5. No change
  - 6. No change
- F.** No change

**ARTICLE 7. EXISTING STATIONARY SOURCE PERFORMANCE STANDARDS**

**R18-2-724. Standards of Performance for Fossil-fuel Fired Industrial and Commercial Equipment**

- A.** No change
- B.** For purposes of this Section, the heat input shall be the aggregate heat content of all fuels whose products of combustion pass through a stack or other outlet. The heat content of solid fuel shall be determined in accordance with ~~R18-2-310~~ R18-2-311. Compliance tests shall be conducted during operation at the nominal rated capacity of each unit. The total heat input of all fuel-burning units on a plant or premises shall be used for determining the maximum allowable amount of particulate matter which may be emitted.
- C.** No change
- D.** No change
- E.** No change
- F.** No change
- G.** No change
- H.** No change
- I.** No change
- J.** For the purpose of reports required under excess emissions reporting required by ~~R18-2-310~~ R18-2-310.01, the owner or operator shall report all 6-minute periods in which the opacity of any plume or effluent exceeds 15%.
- K.** No change